UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,898	09/14/2000	Jefferson P. Ward	10005231-1	9717

22879 7590 03/22/2007	EXAMINER
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400	PHAM, THIERRY L

ART UNIT	PAPER NUMBER
2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/661,898	WARD ET AL.
	Examiner	Art Unit	
	Thierry L. Pham	2625	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- -, Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _17 January 2007_.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1,3-5,8,9,13 and 16-24_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _9,13,17 and 18_ is/are allowed.

6)☒ Claim(s) _1,3-5,8,16 and 19-24_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _12/5/2000_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

● This action is responsive to the following communication: an Amendment filed on 1/17/07.

● Claims 1, 3-5, 8-9, 13, 16-24 are currently pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 8, 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Yorkey et al (US 6317218).

Regarding claim 1, Yorkey discloses a method, performed by logic on a printer driver and/or logic on a printer (RIP 52 of printer 12, fig. 1), of selecting one of a plurality of print settings (print mode, col. 2, lines 12-25) for printing a current document comprising:

● the logic automatically gathering historical document data (automatically gathering, fig. 8, col. 1, lines 65+) relating to prior print setting selections;

● the logic automatically correlating (automatically correlating, col. 5, lines 60-67) each prior print setting selection, including a user's prior print setting preferences (fig. 8), with one or more characteristics of the current document data (characteristics of current document data, figs. 7-8);

● the logic automatically comparing (automatically comparing historical data with current document data, col. 5, lines 5-67) the correlated print setting selections to one or more characteristics of the current document (e.g. whether current document data is monochrome or color, col. 5, lines 5-67); and

• the logic automatically selecting (automatically selecting print mode, fig. 7) a print setting from among the prior print settings, the selected print setting being best (optimum print settings, col. 2, lines 8-25) suited to the user's prior print setting preferences.

Regarding claim 8, Yorkey discloses a method, performed by logic on a printer driver and/or logic on a printer (RIP 52 of printer 12, fig. 1), of selecting one of a plurality of print settings for printing a current document comprising the steps of:
• the logic automatically gathering (automatically gathering, fig. 8, col. 1, lines 65+) prior document data relating to the prior print setting selections including a user's preferred print setting associated with the prior document data;
• the logic automatically comparing (automatically comparing historical data with current document data, col. 5, lines 5-67) the prior print setting selections and associated prior document data to at least one characteristic of the current document; and
• the logic automatically selecting (automatically selecting print mode, fig. 7) a print setting for the document based on the comparison, the selected print setting being best (optimum print settings, col. 2, lines 8-25) suited to the user's preferred print setting associated with the prior document data.

Regarding claim 19, Yorkey discloses a method for executing a print request to print a document, the method comprising:
• logic on a printer driver and/or logic on a printer (RIP 52 of printer 12, fig. 1) analyzing a first characteristic (e.g. whether page data is monochrome or color, col. 4, lines 50-55) of the print request related to the content of the document and a second characteristic (e.g. originator of the print job or a source where print data come from, col. 7, lines 5-12 and col. 8, lines 1-7) of the print request unrelated to the content of the document;
• logic on a printer driver and/or logic on a printer identifying (identifying best print mode for incoming print data, fig. 5-8, col. 6, lines 1-65) a print setting based on the analysis of the first and second characteristics; and
• printing (printing, fig. 5-7) the document using the identified print setting.

Regarding claim 20, Yorkey further discloses the method of claim 19, wherein:

• the first characteristic comprises one or more of a number of pages (e.g. number of pages, col. 5, lines 60+) in the document, an amount of text data in the document, an amount of image data in the document, a type of text data in the document (type of document data, figs. 5-7), and a type of image data in the document; and

• the second characteristic comprises one or more of an input/output protocol associated with the print request, a type of host device (where the print data come from, col. 7, lines 5-30) transmitting the print request, an application (type of application that generates print data, col. 8, lines 8-12) used to generate the print request, a status of a queue for print requests, a time of day of the print request, and a type of media on which the document is to be printed.

Regarding claim 21, Yorkey further discloses the method of claim 19, wherein:

• identifying a print setting based at least on part on the analysis of the first and second characteristics comprises identifying optimum print settings (figs. 5-7) based at least in part of the analysis of the first and second characteristics, and

• printing the document using the identified print setting comprises printing the document (printing the document using selected print mode, figs. 5-7) using the identified print settings.

Claims 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Minagawa (US 6614550).

Regarding claim 22, Minagawa discloses a computer readable medium (RAM 2, fig. 2) having instructions for causing a print device to perform a method, comprising:

• analyzing a first characteristic (type of document to be printed, fig. 9-10, 14-15, i.e. quick text or image or etc.) of the print request related to the content of the document (relating to document data, figs. 14-18) and a second characteristic (type of print media to be used for each mode, figs. 9-10, 14-18) of the print request unrelated to the content of the document;

• identifying a print setting (example of print settings as shown in figs. 14-18) based on the analysis of the first and second characteristics; and

• printing (print using registered print settings as shown in figs. 14-18, see example for selecting appropriate print setting mode on column 9) the document using the identified print setting.

Regarding claim 23, Minagawa further discloses the computer readable medium of claim 22, wherein:

• the first characteristic comprises one or more of a number of pages in the document, an amount of text data in the document, an amount of image data in the document, a type of text data (i.e. text/table mode suitable for general text or table, fig. 13-15, see example 2 & 3 on col. 9, lines 25-65) in the document, and a type of image data in the document; and

• the second characteristic comprises one or more of an input/output protocol associated with the print request, a type of host device transmitting the print request, an application used to generate the print request, a status of a queue for print requests, a time of day of the print request, and a type of media (output media, figs. 8-10, 14-18) on which the document is to be printed.

Regarding claim 24, Minagawa further discloses the computer readable medium of claim 22, wherein:

• identifying a print setting based at least on part on the analysis of the first and second characteristics comprises identifying optimum print settings (selecting optimum print settings based upon document type and etc., figs. 9-15, col. 9, lines 15-65) based at least in part of the analysis of the first and second characteristics, and

• printing (print using registered print settings as shown in figs. 14-18, see example for selecting appropriate print setting mode on column 9) the document using the identified print setting comprises printing the document using the identified print settings.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shima (US 6149323), and in view of Fujomoto et al (US 6204867).

Regarding claim 16, Shima discloses a computer readable medium having instructions for causing a printing device to perform a method, comprising:

● gathering historical document data (gathering historical data of stored document such as titles, col. 3, lines 20-25) relating to prior print setting selections (stored print setting values A1-A4 or B1-B4, fig. 2, col. 3, lines 1-40 and col. 4, lines 6-45);

● correlating each prior print setting selection (print setting values correlated with stored document, col. 3, lines 17-40) including user's prior print setting preference (each document is linked with a setting value files as shown in fig. 3 & 6) with one or more characteristics of the current document data (col. 3, lines 20-25);

● comparing (comparing correlated print setting values to the current document attributes to determine whether previous stored setting values can be used, if not, creates a new setting values, fig. 3, col. 4, lines 45 to col. 5, lines 1-60 and col. 7, lines 3-32) the correlated print setting selections to one or more characteristics of the current document to select a print setting from among the plurality of print settings.

However, Shima fails to teach and/or suggest a method of automatically selecting a print setting from among the prior print settings, the selected print setting being best suited to the user's prior print setting preferences.

Fujimoto, in the same field of endeavor for printing, a method of automatically selecting (automatically selecting a print mode based upon past usage modes, col. 18, lines 44 to col. 19, lines 12) a print setting from among the prior print settings, the selected print setting being best suited (the selected print mode is best for image data

type, for example, color print mode is best for color image data, col. 18, lines 44 to col. 19, lines 12) to the user's prior print setting preferences.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print system method of Shima to include a method of automatically selecting a print mode based upon image data type and its past usage frequencies (*i.e. in other words, if a color print mode has been consistently used for color image data, then it would be obvious to use the same color print mode for future print job that contains color image data*) as taught by Fujimoto because of a following reason: (●) to ensure high print output quality by utilizing the best compatible print mode; (●) automatically selecting best print mode without human invention reduces operating time and costs; (●) wasted power consumption can be prevented (col. 17, lines 20-28 of Fujimoto).

Therefore, it would have been obvious to combine Shima with Fujimoto to obtain the invention as specified in claim 16.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yorkey, and in view of Minagawa (US 6614550).

Regarding claim 3, Yorkey fails to teach and/or suggest automatically determining an amount of text data in the current document; and automatically adjusting a print setting associated with the current document based on the amount of text data.

Minagawa, in the same field of endeavor for printing, teaches automatically determining an amount of text data (col. 9, lines 35-42) in the current document; and automatically adjusting (fig. 8, abstract, col. 2, lines 4-10 and col. 6, lines 18-28) a print setting associated with the current document based on the amount of text data.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify printing method of Yorkey to include instructions automatically determining an amount of text data in the current document; and automatically adjusting a print setting associated with the current document based on the

amount of text data as taught by Minagawa because of a following reason: (●) to save print medias (col. 9, lines 55-58).

Therefore, it would have been obvious to combine Yorkey with Minagawa to obtain the invention as specified in claim 3

Regarding claim 4, Minagawa further teaches automatically determining an amount of image data (col. 9, lines 35-42) in the current document; and automatically adjusting a print setting (fig. 8, abstract, col. 2, lines 4-10 and col. 6, lines 18-28) associated with the current document based on the amount of image data and the user's prior print setting preferences.

Regarding claim 5, Yorkey discloses a method of selecting (selecting print mode, fig. 5-7) one of a plurality of print settings for printing a document comprising:
● the logic automatically comparing (col. 5, lines 5-67) characteristics of current document data with prior document having a similar characteristics;
● the logic automatically selecting (automatically selecting print mode, fig. 7) a print setting for the document from the plurality of print settings based on the comparison.

Yorkey fails to teach and/or suggest automatically determining an amount of text data in the document and amount of image in the document; and automatically selecting a print setting associated with the document based on the amount of text data and amount of image in the document.

Minagawa, in the same field of endeavor for printing, teaches automatically determining an amount of text data (col. 9, lines 35-42) and amount of image (col. 9, lines 35-42) in the current document; and automatically selecting (fig. 8, abstract, col. 2, lines 4-10 and col. 6, lines 18-28) a print setting associated with the current document based on the amount of text data.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify printing method of Yorkey to include instructions automatically determining an amount of text data and amount of image in the current document; and automatically adjusting a print setting associated with the current

document based on the amount of text data as taught by Minagawa because of a following reason: (●) to save print medias (col. 9, lines 55-58).

Therefore, it would have been obvious to combine Yorkey with Minagawa to obtain the invention as specified in claim 5.

Response to Arguments

Applicant's arguments with respect to claims 1, 5, 8, and 19 have been considered but are moot in view of the new ground(s) of rejection due to newly added feature (a logic for performing the steps).

Claims 16 & 22-24 have not been amended; therefore, previous rejection is herein applied.

Regarding claims 22-24, the applicant argued the cited prior art of record (US 6614550 to Minagawa) fails to teach and/or suggest any printer at all (see page 8, lines 1-3). The Examiner fully disagrees. Claims 22-24 are directed to a computer readable medium for storing computer program instructions and not for printing device as argued by the applicant. Minagawa explicitly teaches an example of a printer driver (fig. 4) for causing the print device to perform printing function.

Claims 22-24 previously rejected under section 102(e) as being anticipated by Shima 6149323 are herein withdrawn.

Allowable Subject Matter

Claims 9, 13, 17-18 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art of record fails to teach and/or suggest automatically analyzing a plurality of characteristics relating to document data in the current document, the plurality of characteristics including a host device type, a type of text data, a type of image data, an infrared communication, and a radio frequency communication, automatically comparing plurality of analyzed characteristics with user's prior print settings preference associated with prior documents, and to automatically select an appropriate print setting based upon the analyzed characteristics *and in combinations of*

other features as cited in independent claims 9 & 17. The examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of prior arts that teaches the above limitations and in combinations of other features cited in claims 9 & 17.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.   Accordingly, **THIS ACTION IS MADE FINAL**.   See MPEP § 706.07(a).   Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L. Pham whose telephone number is (571) 272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thierry L. Pham

GABRIEL I. GARCIA
PRIMARY EXAMINER